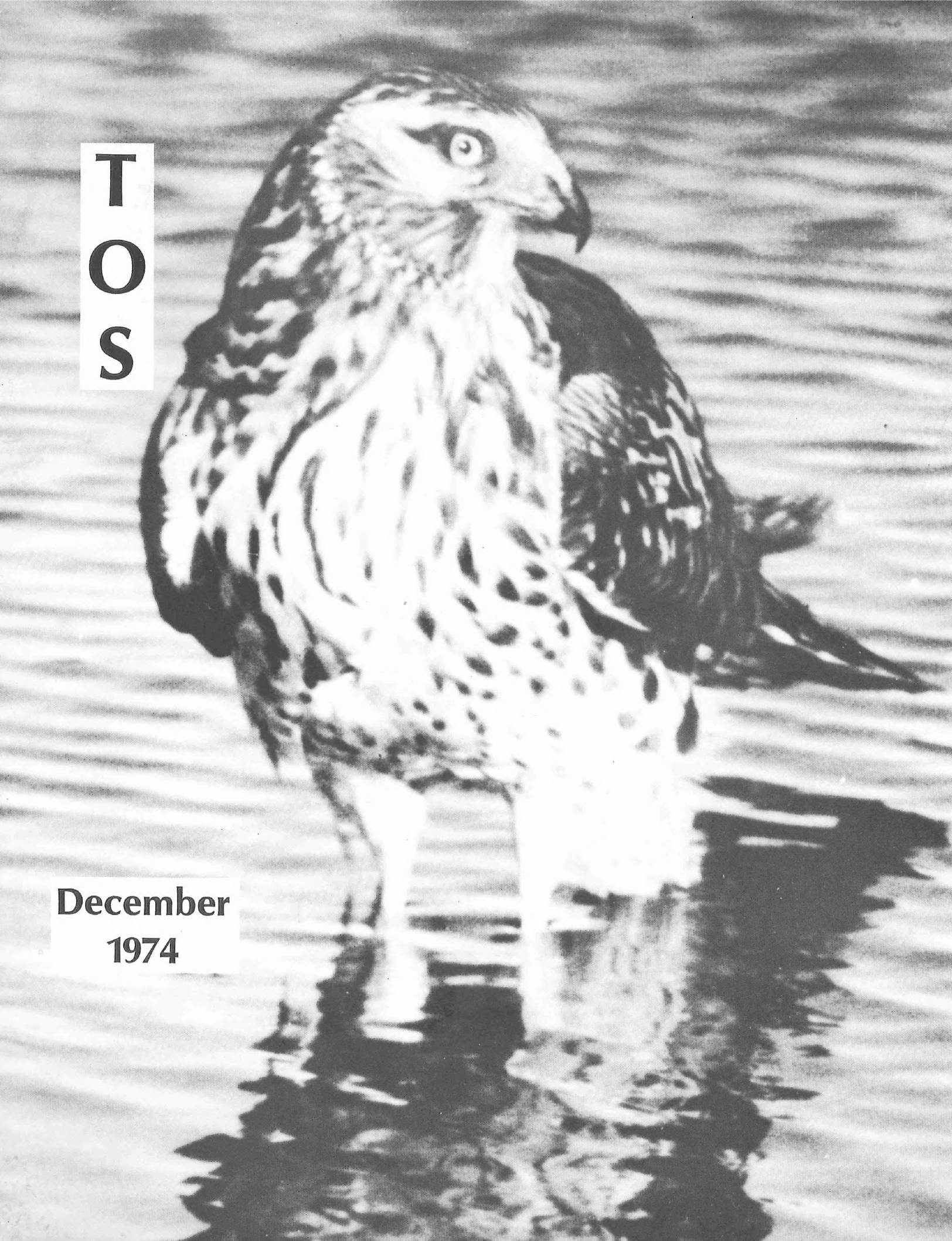
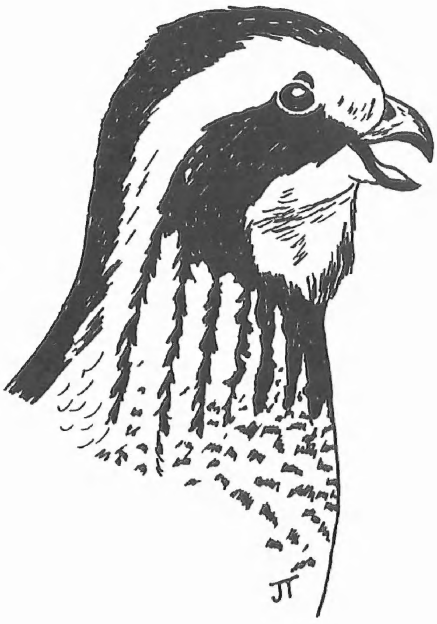
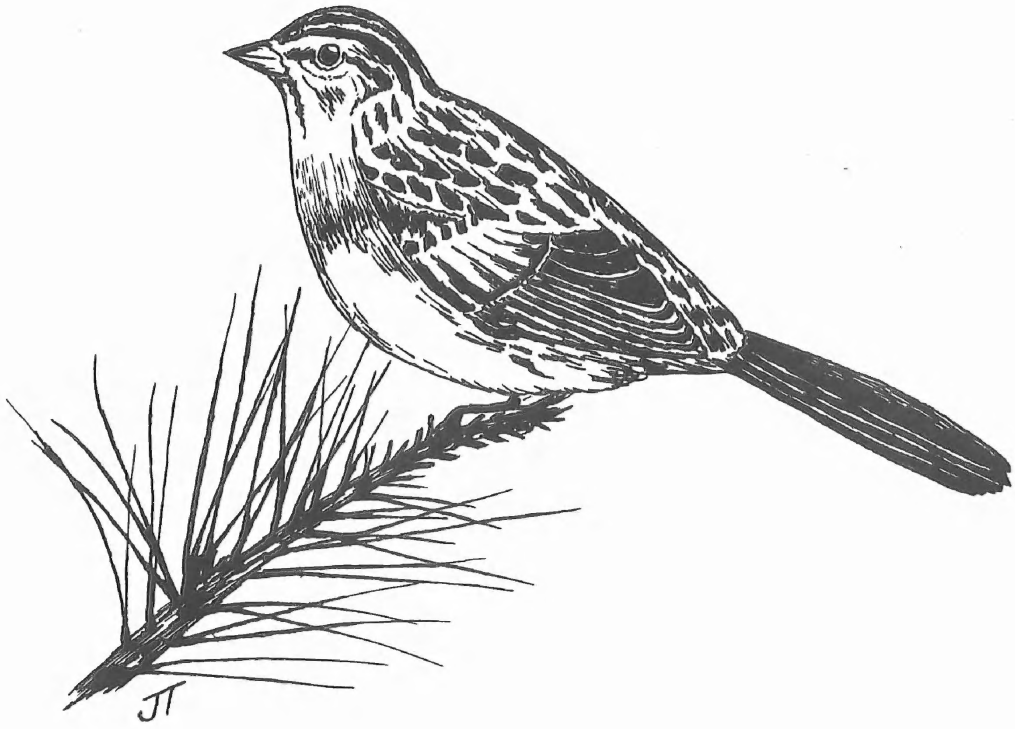

TOS
December
1974





Bulletin of the

TEXAS ORNITHOLOGICAL SOCIETY

Volume VII, December 1974

CONTENTS

2 Migrants and Space: the Wintering Ground as a Limiting Factor for Migrant Populations
John Rappole

4 Notices

5 Dickcissels Nesting in Mesquite, Texas
Steve Fretwell
Margaret Francis
Tom Shane

7 Yellow-crowned Night Heron Nesting in Lubbock County
Donna Bjelland
Sharon Menaul
A Winter Roost of Bronzed Cowbirds in Southwest Texas
Stanley Casto

8 A Note on the Foraging Behavior of Groove-billed Anis
Eric Bolen
Evening Grosbeak in Big Bend National Park, Texas
Jack D. Tyler

10 Recent Articles about Texas Birds
James P. Griffing

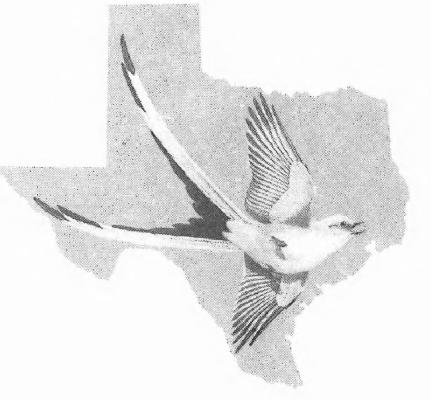
12 Book Reviews

The Bulletin and Newsletter of the Texas Ornithological Society are issued to all members not in arrears for dues. Inquiries regarding membership should be addressed to Mr. Edward A. Kutac, President, Texas Ornithological Society, 5800 Reicher Drive, Austin, Texas 78727. Original articles, reports and other items submitted for inclusion in the TOS Bulletin should be sent to the editor, Dr. Michael K. Rylander, Department of Biology, Texas Tech University, Lubbock, Texas 79409.

ABOUT THE AUTHORS. John H. Rappole, who contributed an excellent article about the ecology of wintering birds, is a Research Associate at the Welder Wildlife Foundation. The research on which his article is based was carried out in Texas and Mexico. Steve Fretwell and Tom Shane are associated with the Bird Populations Institute at Kansas State University, and Margaret Francis is an active birder and TOS member who lives in Garland, Texas. Donna Bjelland and Sharon Menaul are residents of Lubbock. They discovered the rookery reported on page 7 while taking a group of students on a local field trip.

Stanley Casto, who has contributed regularly to the TOS Bulletin, was appointed this year to the Biology Faculty at Mary Hardin-Baylor College in Belton. Ornithology will be one of the courses he will teach at that college this year. Eric Bolen is Assistant Director of the Welder Wildlife Foundation in Sinton. He studied the behavior of the Groove-billed Ani (p. 8) during a trip to Mexico that he made in connection with Mexican research projects supported by that foundation. James P. Griffing lived in Comanche, Texas until recently, and now contributes valuable abstracts of ornithological papers from his current residence in New Mexico.

The photographers for this issue are Bert Blair, who manages Muleshoe National Wildlife Refuge; and Tony Mollhagen, who is a graduate student in zooparasitology at Texas Tech University. John Tveten, who illustrated the Bobwhite and Bachman's Sparrow, is from Baytown and is the TOS Librarian.



Marsh Hawk (front cover) by Bert Blair. Bobwhite and Bachman's Sparrow (opposite page) by John Tveten.

Hooded Warbler John Rappole

Migrants and Space: The Wintering Ground as a Limiting Factor for Migrant Populations

by John Rappole

DEATH is an integral part of all biological communities, and the manner of its occurrence is of paramount importance to the survival of populations within the community. A population must be able to adapt to the causes of death or face a continuing decline which, if uncurbed, leads inevitably to extinction.

A number of species of our North American migrants are apparently faced with an unknown mortality factor to which they seem unable to adapt. Over the past 15 years breeding bird surveys conducted by the National Audubon Society and the Bureau of Sport Fisheries and Wildlife have shown an inexplicable decline in migrant populations. This trend was first brought to the public eye by Rachel Carson. "Over increasingly large areas of the United States, spring now comes unheralded by the return of the birds, . . ." (Carson, 1962). Pesticides and man-made obstacles such as airport ceilometers and TV towers have been cited as the possible culprits in this dilemma (Carson, 1962; Kemper, 1964) though with an average adult yearly survival rate of 60% for most small passerine species (Roberts, 1971) and a number of young fledged yearly at two to three times adult population levels it seems unlikely that these factors could cause a decline that could not be met by recruitment of young individuals into the population.

A factor that has been generally overlooked is that of habitat availability. Habitat is a summation of all of the components of the environment important to a bird's survival. Therefore we would expect a priori that if habitat were in short supply those species dependent on it would also be limited. This idea sparked a symposium by the Smithsonian Institution in 1966. The stated purpose was to discuss the possible importance of dwindling forest resources in the tropics as a cause for declining North American passerine populations (Buechner and Buechner, 1970). The major contribution of this symposium was to underline the remarkable paucity of data on the subject of the relationship between migrant populations and their wintering ground habitat.

In 1972 I undertook a project which was designed to elucidate the problem, at least so far as winter and stopover habitats might be concerned. This study was made possible by a grant from the Welder Wildlife Foundation in Sinton, Texas. The coastal bend region of southern Texas and the Tuxtla mountains of southern Veracruz were chosen as sites for the study.

Texas is an extremely important state for both migratory and wintering migrants. In the moon counts of the 1950's the Rockport-Brownsville area showed some of the highest migrant densities of all stations sampled (Newman and Lowery, 1964). The forests of the state offer excellent stopover and wintering areas for forest-related migrants of many species and, as such, the destruction of these habitats may cause the same problems relative to declining populations as those hypothesized for the tropics.

To test this hypothesis 50 mist nets were set up in one of the wooded riparian areas (motts) on the Welder Wildlife Refuge, some 35 km north of Corpus Christi. These nets were run daily from August-October, 1973 and March-May, 1974. November-February were spent at a biology station of the University of Mexico in southern Veracruz, thanks to the cooperation of Dr. Gomez-Pompa,

Director of the Instituto de Biologia, UNAM. The Texas study area is a swath of Hackberry-Anacua forest bordering the Aransas River. Twenty-five net lanes were cut, two 12-meter nets per lane, with 30 meters between lanes along a north-south ranch road. For each bird captured the species, age, sex, state of molt, weight, and wing length were recorded. The bird was then given two bands: one, a color band corresponding to the ten net sector within which it was captured; the other, a Fish and Wildlife Service band. It was then released either at the point of capture or at some known distance from the study area.

Three other methods were used to assess the social structure of conspecifics. First, extensive field observations were made. Second, recordings of vocalizations were made in the field. These tapes were then played back in the study area to get some indication of the meaning of the vocalization. Third, live birds were captured and held caged in another conspecific's area. The interactions which developed were recorded on film.

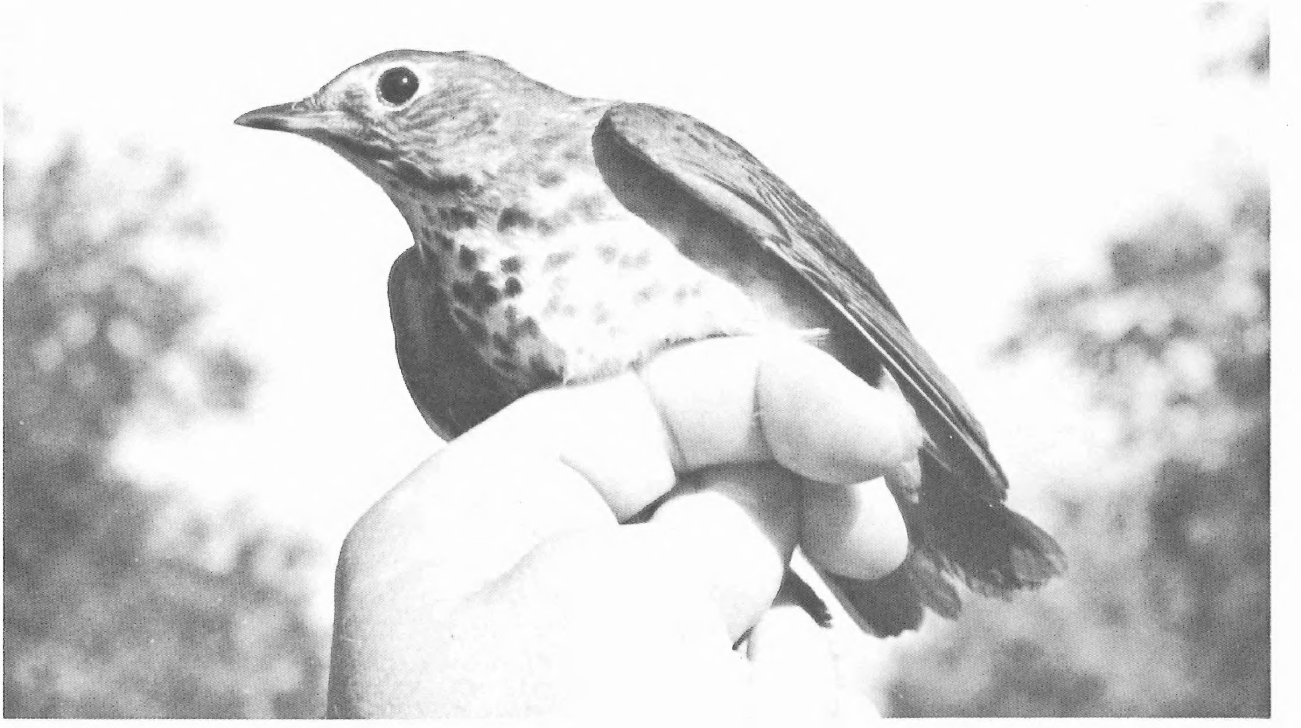
A detailed analysis of these experiments, from both the Texas and Mexico study areas, are to be reported elsewhere. The results can be summarized as follows: 1) Adult winter residents released from points one to eight kilometers from the study site returned to the area of capture within a few hours to one or two days after release. Field observations confirmed that these individuals remained on .2 to .4 hectare territories throughout their stay on the wintering grounds. 2) Such birds responded rapidly to playback by approaching the speaker from wherever they were in their area, chipping vigorously. 3) Stake-out of a live bird in another individual's area produced stylized aggressive behavior on the part of the resident bird such as that shown in Figure 1.

These results were obtained from birds found only as winter residents in the Texas and Mexico study areas. Response from the ten different species tested, all of which were passerines, insectivorous, and forest-related on the breeding grounds, differed in detail from species to species, but not in character, nor did the radically different types of habitats in which the birds were tested, tropical rain forest and Gulf Coast riparian, seem to affect the response.

The importance of these results lies in the apparent ties which each individual bird has to his territory. The species tested appear to be as tied to a particular piece of land on their wintering grounds as on their breeding grounds. Preliminary data on migrants at stopover areas further indicate that those few individuals which stop in an area for longer than three days are building fat reserves and are as faithful to, and as defensive about their areas as a winter or summer resident.

Fifty-five species of forest-related, migrant passerines are commonly found at Welder, ten of which winter in motts (Cottam and Blacklock, 1972). These birds are mostly solitary, insectivorous species whose social system appears to center on the maintenance of a certain inviolable amount of individual space. Once such an area has been established by an individual it is likely that he will return there each year until he is dead or the area is destroyed (Nickell, 1968; Schwartz, 1964; Loftin *et al.*, 1966). If the bird dies, it can be replaced from the large surplus of young searching for suitable areas each fall. If the habitat is destroyed the individuals associated with it will likely perish and cannot be replaced.

Millions of hectares of tropical forest are being cleared annually in Latin America, and with the burgeoning human population the trend is likely to increase rapidly. In Texas and many other states, there is a similar trend toward clearing massive amounts of "brush" land, brush meaning anything woody, with little regard to what the habitat was prior to exploitation. I am convinced that in



Swainson's Thrush ready for release

Elizabeth Rappole

both cases the tragic waste stems from a lack of proper guidance. It is possible under certain management systems to maximize long term gains while maintaining a good ecological balance. It is not likely that anyone living close to the land, whether rancher or farmer, Texan or Veracruzan, would reject such a system if he could be shown the practical alternatives to total destruction.

This study was designed to investigate the problems faced by migrant birds relative to current policies of international land use. The preliminary results of this work strongly suggest that habitat destruction will, if continued at present levels, precipitate the rapid loss of one of the most esthetically pleasing and ecologically necessary features of our wild country, its birdlife. "Habitat is wildlife," states Barbara Ward Jackson in her book *Only One Earth*. When you destroy one bird, or ten birds, or ten thousand birds, the destruction ends with the termination of the act. When you destroy habitat you not only kill those animals living there now, but all the future generations that might have been.

LITERATURE CITED

The Avifauna of Northern Latin America: a symposium held at the Smithsonian Institution 13-15 April, 1966. Buechner, H. K., and J. H. Buechner, Eds. Smith. Cont. Zool., 26, 1970: viii + 119pp.

Carson, R. 1962. Silent Spring. Fawcett Publ. Co., Greenwich, Conn.: 304pp.

Cottam, C., and G. W. Blacklock. 1972. Checklist of the birds. Welder Wildlife Foundation, Sinton, Texas.

Jackson, B. W. 1972. Only One Earth. Norton Publ. Co., New York. xxv + 225pp.

Kemper, C. A. 1964. 30,000 dead birds. Audubon Magazine, 66, 2:86-90.

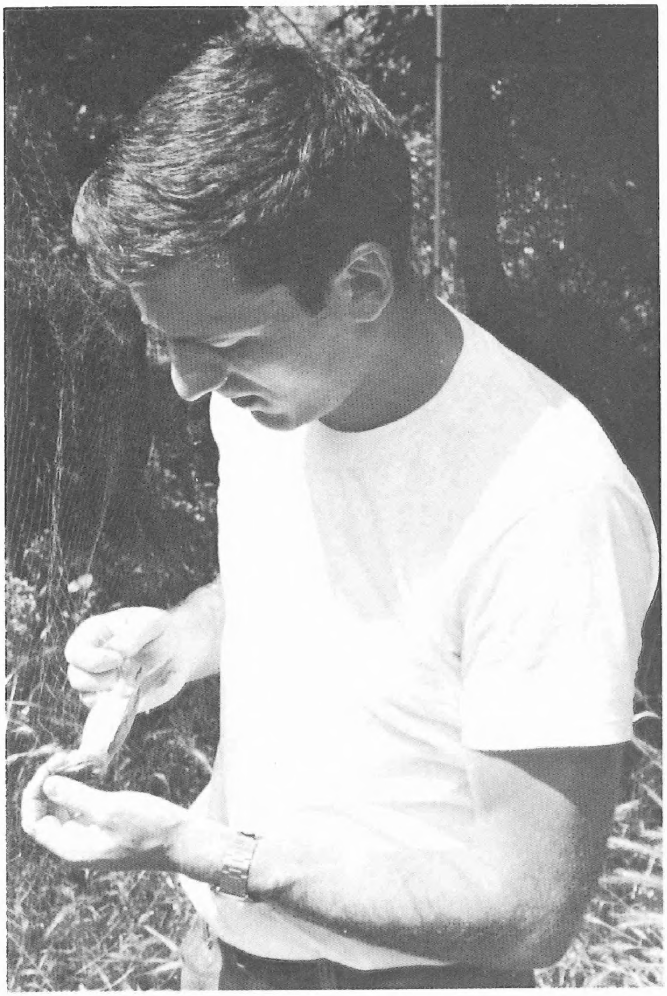
Loftin, H., D. J. Rogers, and D. L. Hicks. 1966. Repeats, returns, and recoveries of North America's migrant birds banded in Panama. Bird-Banding, 39:107-116.

Newman, R. J., and G. H. Lowery. 1964. Selected quantitative data on night migration in autumn. Special Publ. Mus. Zool. Louisiana St. Univ., 3:1-39.

Nickell, W. P. 1968. Return of northern migrants to tropical winter quarters and banded birds recovered in the United States. Bird-Banding, 39:107-116.

Roberts, J. O. L. 1971. Survival among some North American Wood Warblers. Bird-Banding, 42:165-184.

Schwartz, P. 1964. The Northern Waterthrush in Venezuela. Living Bird, 3:169-184.



Author removing a Red-eyed Vireo from net

NOTICE: HAWK MIGRATION ASSOCIATION OF NORTH AMERICA

THIS notice will serve to introduce the Hawk Migration Association of North America, a newly formed organization which will strive to increase communication between hawk-watchers, to standardize the recording and processing of hawk migration data, and to expand and improve the coverage of hawk migration in North America.

For the purpose of the Association's work, North America has been divided into nine regions, each with a regional representative/editor. Before each spring and fall migration season, all participating hawk-watch and hawk-banding stations will receive, free, as many copies of the HMANA Report Form as are needed. After each season, hawk-watchers will return completed forms to their regional representatives, who will write a regional report. All of these regional reports, plus a continent-wide summary, will be published twice annually, and will be sent to each member.

The association is vitally interested not only in lookouts that are manned regularly, but also in those that are covered infrequently. This allows the exploring hawk-watcher leeway for searching out new watches which will help to expand the coverage throughout the South. If you are interested in learning more about the Hawk Migration Association please contact Robert S. Kennedy, Southern Regional Representative HMANA, Museum of Zoology, Louisiana State University, Baton Rouge, Louisiana 70803.

NOTICE: COLOR-MARKED COWBIRDS

OVER 2,800 cowbirds were banded and color-marked in west-central Kansas during 1973 as an aid in studying their movements and hopefully to determine their place of origin. Birds were marked with dark blue or yellow plastic leg streamers. Banding and color marking will be continued in 1974 with red, yellow, or dark green leg streamers. Observers should report location and date of sighting, sex of bird and color of leg streamer to Richard A. Hill, Department of Biology, Fort Hays Kansas State College, Hays, Kansas 67601.

Dickcissels Nesting in Mesquite, Texas

SINCE 1969 we have gathered information on the ecology of the Dickcissel populations on a 28-acre pasture (which we call "Galloway Pasture") in Mesquite, Texas. This report describes our observations, most of which were by one of us (Francis) who made regular and frequent trips to the pasture during the Dickcissel's breeding season.

We conducted the study to find out why the Dickcissel is so erratic in its distribution and abundance. Our recent findings are somewhat alarming. Dickcissels appear to be frequently unsuccessful in breeding in most of the northern parts of their range. Only in Texas and northern Oklahoma did we find evidence for a successful breeding effort. The cause for this inability to breed is not completely clear but appears related to cowbird parasitism, the density of female Dickcissels, and the male-female ratio. When there are more males than females, female densities appear to be reduced and cowbird parasitism increased. Curiously, nest predation also seems to increase when cowbird parasitism is higher.

Von Steen (1965), working in Nebraska, studied 10 Dickcissel nests and found none to be successful in producing young. Zimmerman (1966, 1971), working to the south in Kansas, studied Dickcissels from 1965 through 1969. He found that in some years the Dickcissels were almost completely unsuccessful. In other years conditions were better and pairs succeeded in fledging 20-30% of the eggs laid. Overmire (1962) worked in northern Oklahoma; 33% of the nests he found were successful. Wiens (1963) worked in southern Oklahoma where 45% of the nests were successful.

Thus, the more southern Dickcissel populations appeared to be more successful in breeding. We needed a Texas point to confirm this trend and hence we were fortunate to have the Galloway Pasture available for study.

Between 21 May 1970 and 16 June 1970 we made 19 trips to the pasture. Each trip included a trip through each male's territory and by every nest. The location of all the Dickcissels and the status of each nest were recorded and the nestlings were banded. The height, location and appearance of each nest were recorded.

Figure 1 indicates the male territories (irregular areas) with the number of females per male indicated within each territory on the map. There were about 20 males and 24 females.

Figure 2 provides a schedule of activity on the area, with the number of active nests plotted against time, showing a single peak of nesting activity and the departure of all birds by late June.

Of the 22 nests studied, 50% were successful in fledging at least one young (average = 2.2 young). Clutch size averaged 4.44 eggs, and 5% of the clutches were affected by cowbirds (i.e. one egg in one nest).

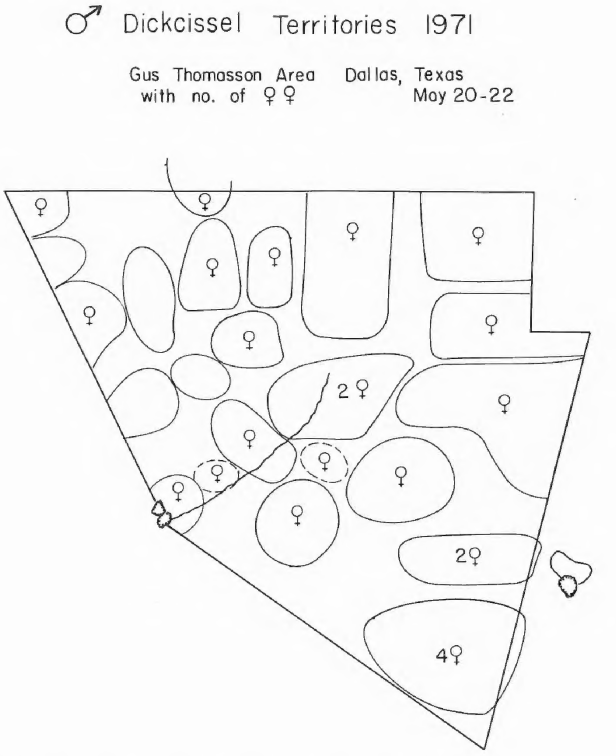


Figure 1. A map of the study field with territories plotted. Gus Thomasson road borders on the top or eastern edge of the field. Male territories with no females marked were mateless.

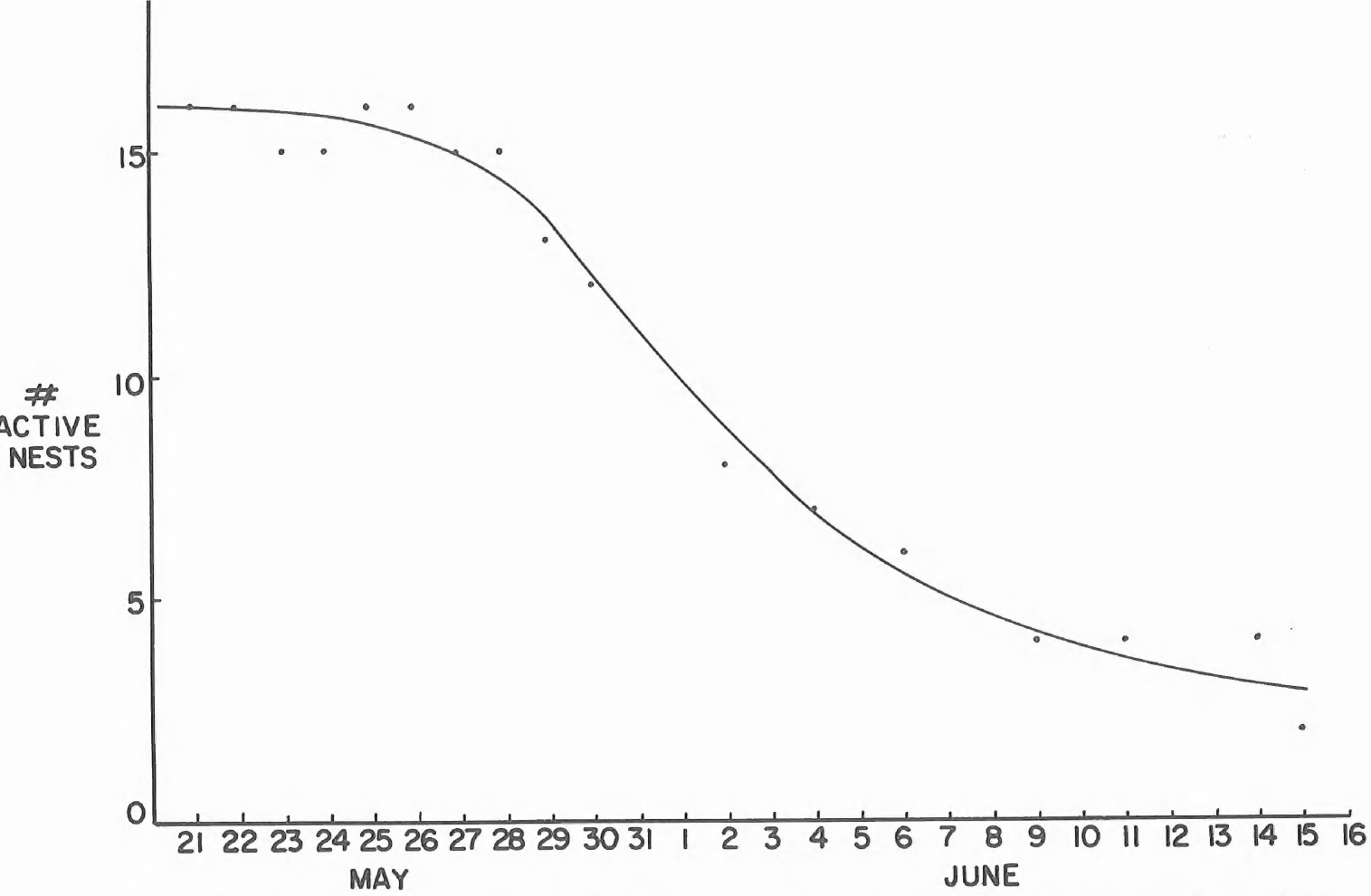


Figure 2. The number of known nests in the field declined from 21 May on. This indicates that only one brood is raised in this area, and mid-June nests were re-nestings after failure.

Most nests were placed in grass or next to a thistle (*Carduus asistrium*).

As we expected, Dickcissels nested more successfully in Texas than in Oklahoma, Kansas or Nebraska, and cowbird parasitism was lower. Clutch size was higher, but the percentage of males with females was not higher than in Zimmerman's studies. We now need success rates from central and south Texas to complete our study of this trend, and we are interested in collaborating with persons who have an opportunity to study Dickcissels in these areas.

Table 1. North-south trends in Dickcissel nesting success.

Rates of cowbird parasitism (percent of nests affected)	Rates of nest survival	Location	Author
47%	0	Nebraska	Von Steen (1965)
52%	–	Nebraska	Hergenrader (1962)
60%	25%	Kansas	Zimmerman (1971)
31%	30%	N. Oklahoma	Overmire (1962)
20%	45.5%	S. Oklahoma	Wiens (1963)
5%	50%	W. Texas	This report

LITERATURE CITED

Hergenrader, G. L. 1962. The incidence of nest parasitism by the Brown-headed Cowbird (*Molothrus ater*) on roadside nesting birds in Nebraska. Auk 79:85-88.

Overmire, T. G. 1962. Nesting of the Dickcissel in Oklahoma. Auk 79:115-116.

Von Steen, D. A. 1965. A study of nesting Dickcissels in Nebraska. Neb. Bird Rev. 33:22-24.

Wiens, J. A. 1963. Aspects of cowbird parasitism in southern Oklahoma. Wilson Bull. 75:130-139.

Zimmerman, J. L. 1966. Polygyny in the Dickcissel. Auk 83: 534-546.

———. 1971. The territory and its density dependent effect in Spiza americana. Auk 88:591-612.

STEVE FRETWELL, Bird Populations Institute, Division of Biology, Kansas State University, Manhattan 66506, MARGARET FRANCIS, and TOM SHANE.

YELLOW-CROWNED NIGHT HERON NESTING IN LUBBOCK COUNTY

An active Yellow-crowned Night Heron rookery was discovered in Lubbock 23 July 1974, providing the first county nesting record for that species. The rookery contained three nests identified as nests of Yellow-crowned Night Herons, and two nests presumed to be nests of Green Herons. Fifteen Yellow-crowned Night Herons, including juveniles, and one Green Heron were reported from the rookery.

All nests were placed in the forks of horizontal elm (*Ulmus*) branches, centered over a small stream (15 feet wide, 2 feet deep). The elms were located in a grove of trees that included willows (*Salix*) and salt cedars (*Tamarix*). The surrounding area of mesquite (*Prosopis*), sage (*Salvia*), various cacti (including *Opuntia*) and other arid-land plants is bordered by three well-traveled roads, the nearest of which is less than 200 yards from the rookery.

The nests were constructed 25-35 feet above the stream. The larger nests (approximately 1½ feet in diameter) were merely platforms of sticks, whereas the smaller nests (approximately 8 inches in diameter) were shallow, tightly constructed depressions of sticks.

Although the Yellow-crowned Night Heron is reported to breed locally in this part of Texas, the discovery of the rookery was unexpected, since few of these birds were seen in Lubbock County during the past ten years. Moreover, the area had received considerably less rainfall than normal during the preceding year, and many of the local ponds and streams where presumably this species feeds had been dry for several months.—*DONNA BJELLAND and SHARON MENAUL, 2518 38th Street, Lubbock, Texas 79413.*

Yellow-crowned Night Heron at nest

A WINTER ROOST OF BRONZED COWBIRDS IN SOUTHWEST TEXAS

In 1876 Merrill (*Proc. U. S. Natl. Mus.*, I, 1878, pp. 118-173) found Bronzed Cowbirds (*Tangavius aeneus*) to be common residents of the Lower Rio Grande Valley. In 1892 Attwater (*Auk* 9:229-238) reported evidence of nesting at San Antonio where the species was a rare summer resident. More recent records of the seasonal distribution of the species have been provided by Selander and Webster (*Condor* 65:245-246, 1963), Wauer (*Wilson Bull.* 85:343-344, 1973) and Oberholser and Kincaid (*The Bird Life of Texas*, Univ. Tex. Press, Austin, 1974).

Oberholser and Kincaid (*loc. cit.*) state that the Bronzed Cowbird is locally and erratically common to very rare through South Texas during the winter. Small numbers have been regularly observed at San Antonio during the winter and a roost of about 20 birds was reported at Woodlawn Lake in 1961-62. This site was utilized throughout the winter and the flock disbanded during March and April (Selander and Webster, *loc. cit.*). In this report, I describe a large roost of Bronzed Cowbirds as evidence that the species is now established as a common winter resident in the region between San Antonio and Laredo.

The roost was first observed on 27 December, 1973, on the John Casto Ranch near Millett, La Salle County, Texas. An estimated 400 to 500 birds gathered just before sundown on an electric line bordering a 46-acre field of buffelgrass (*Pennisetum ciliare*). As it became darker, small flocks of birds left the main aggregation and began to circle over the field. After several passes each flock settled into the grass. Surprisingly, the flocks did not all roost in the same area.

Later in the evening the field was entered in an attempt to locate the roosting birds. Height of the buffelgrass varied from 1-4 feet and in many places formed a solid cover on the ground. Birds were flushed only from those areas where the grass was shortest or where small, bare areas of ground occurred between the clumps of grass. A specimen was collected to confirm identification.

Subsequent observations by John Casto showed that a similar roosting pattern was followed each evening. Approach to the roost-site was by two separate flight lines. The birds arrived about five minutes before sundown and after gathering on the electric line split into small flocks which circled the field in search of roosting spots.

The cowbirds continued to use the field as a roost throughout January, February and March. The number of birds decreased to about 100 by 26 February and by 10 March only about 25 birds were observed. The intermittent grazing of the field by cattle during January and February had no apparent effect on roosting activities.

Why the field was selected as a roost-site is unknown. Certainly it was not a lack of trees, for two large salt cedars (*Tamarix* sp.) bordered the field and a mott of huisache (*Acacia farnesiana*) was available less than one-half mile away. Buffelgrass is not a native plant and was introduced into southwest Texas during the 1950's. Many of the fields originally in the soilbank program still have extensive stands of this exotic grass species.

With respect to roosting habits, Merrill (*loc. cit.*) noted that on spring days flocks "scatter over the surrounding

countryside in little companies . . . returning at night." Oberholser and Kincaid (*loc. cit.*) state that Bronzed Cowbirds usually roost in the shade trees of towns. Winter flocks reportedly emit squeaky and creaky sounds resembling those made by metal signs swinging in the wind. In Central America, A. F. Skutch (Bent, *U. S. Natl. Mus., Bull.* 211, 1958) observed Bronzed Cowbirds roosting in a dense stand of young giant canes (*Gynerium sagittatum*). Skutch further noted that the cowbirds were "rarely heard" after going to roost. In Costa Rica flocks of up to 200 birds were observed to use communal roosts along the Rio Sierpe (Kiff, *Wilson Bull.* 85:240-242, 1973). Other than these brief notes, I can find no description of the roosting behavior or preferred roost habitat for this species.—*STANLEY D. CASTO, Department of Biology, Mary Hardin-Baylor College, Belton, Texas 76513.*

A NOTE ON THE FORAGING BEHAVIOR OF GROOVE-BILLED ANIS

THE diet of the Groove-billed Ani (*Crotophaga sulcirostris*) includes extensive amounts of arthropods and, to a lesser degree, fruits and berries; the insects are typically secured from both foliage and the ground (Skutch, *in* Bent, U. S. Nat. Mus. Bull. 176:31, 1940). Groove-billed Anis are also reported as leaping a foot or so upward for grasshoppers and other flying insects. Most notably, however, Skutch (*op. cit.*) cites the habit of anis securing insects flushed by grazing cattle or mules. Moreover, Groove-billed Anis are said to alight on the backs of grazing animals and thereby feeding on ticks. However, Skutch (pg. 32) suggests that this behavior is often mistakenly attributed to anis and is instead more characteristic of the Giant Cowbird (*Scaphidura oryzivora*), a black-colored bird of similar size.

On 20 January 1974, about 20 miles east of Catemaco in southern Veracruz, I noticed Groove-billed Anis feeding at the feet of grazing cattle. The birds at times leaped from the ground as insects were flushed. At other times, individual birds momentarily hovered against a cow's flanks or sides while quickly securing arthropods of some sort—presumably ticks—attached to the cow. Occasionally, single birds perched on a cow's hock but this was a precarious hold and it was not maintained for more than a second or two. Less commonly, the anis took up a feeding perch on the cow's back. This position was not held for long as the birds were quite active and busily feeding on flying insects as well as on the skin-borne foods. The cows showed no reaction to the birds and continued grazing.

Giant Cowbirds, while occurring in Veracruz, are uncommon near Catemaco. In fact, an intensive research project involving the avifauna in the immediate area and manned by a team of graduate students has not discovered Giant Cowbirds in the course of their work. Groove-billed Anis, however, are indeed common in this area and were seen daily with cattle in pastures cleared from primary rain forest.

My observation, above, was shared with Robert M. Zink and the late Clarence Cottam.—*ERIC G. BOLEN, Rob and Bessie Welder Wildlife Foundation, Sinton, Texas 78387.*

EVENING GROSBEAK IN BIG BEND NATIONAL PARK, TEXAS

FROM about 12:30 to 12:45 p.m. on 20 May 1974, while searching for the Colima Warbler (*Vermivora crissalis*) in the canyon just above Boot Spring (elev. 6500 ft.), in Big Bend National Park, Texas, I noticed a robust, rather tame finch foraging among dead leaves in the dry streambed. Its general yellowish-olive coloration, oversize light-colored bill and contrasting white spots in the folded black wings and tail were certain field marks—the bird was a female Evening Grosbeak (*Hesperiphona vespertina*). It remained nearby as I continued my search for warblers, and caught my attention several times as it worked noisily through the dry leaves.

Although the day was quite warm, the dense shade produced by the pine-oak association in Boot Canyon effectively lowered ambient temperature there to near 80°F. Boot Spring was dry. Park personnel told me that the Chisos Mountains Basin had received less than an inch of precipitation during the year; in fact, few desert plants had yet bloomed.

The grosbeak could have wintered in the lower elevations at Big Bend, or it may have been a transient which had strayed northeastward along the Sierra Madre Occidental. Although the species had widely irrupted into the southern Great Plains during the winter of 1972-73, such was not the case the following winter (see *Amer. Birds*, 27:649, 1973 and 28:659, 1974).

Wauer (Birds of Big Bend National Park and Vicinity, p. 209, 1973) listed the Evening Grosbeak as "hypothetical," citing one record: "Karl Haller reported this species in the Chisos Basin on December 30, 1951 Christmas Count."—*JACK D. TYLER, Department of Biology, Cameron University, Lawton, Oklahoma 73501.*

Groove-billed Ani — David Dean

Curved-billed Thrasher
Tony Mollhagen

White Pelicans Bert Blair

Horned Lark Bert Blair

RECENT ARTICLES ABOUT TEXAS BIRDS

Bray, Olin E., Willis C. Royall, Jr., Joseph L. Guarino, and John W. De Grazio. 1973. *Migration and seasonal distribution of Common Grackles banded in North and South Dakota.* Bird-Banding 44(1):1-12. "They spend the winter south of the Arkansas-Missouri state line, mainly from eastern Texas and Oklahoma to the Mississippi . . ." (authors' summary).

Moldenhauer, Ralph R. and Patricia G. Taylor. 1973. *Energy intake by hydropenic Chipping Sparrows (*Spizella passerina passerina*) maintained on different diets.* Condor 75(4):439-445. Birds fed mash, millet, or mix and water was unlimited, limited, or unavailable. Birds on mash diet drank more water than those on millet or mix. With limited water, millet-fed birds had higher energy utilization coefficient. Without water, all 10 birds on mash and all five on mix died within six days. Four of 10 millet-fed birds, without water, survived 21 days. Greater water requirement of mash-fed birds is related, by authors, to higher nitrogen and salt content of mash.

Bolen, Eric G. and M. Kent Rylander. 1973. *Copulatory behavior in* Dendrocygna. Southwest. Nat. 18(3):348-350. Birds were filmed at San Antonio Zoo, March 1971.

Anon. 1973. *Who says timber and wildlife don't mix?* T(exas) F(orest) News 52(Fall):10-11. "A wildlife specialist has been employed by the Texas Forest Service to reconcile some of the differences that have traditionally kept wildlife biologists and foresters poles apart. . . . This new thrust in state forestry is designed to protect and develop the total forest ecology and the many benefits it offers."

Cain, Brian W. and Keith A. Arnold. 1974. *Black-bellied Tree Ducks (*Dendrocygna autumnalis*) nesting in the central Brazos Valley of Texas.* Southwest. Nat. 18(4):474-475. In August-September 1972, a pair nested in Wood Duck nest box about one mile south of College Station. These ducks were also heard on Lake Somerville (Burleson County) in late July, early August, and early September.

Otteni, Lee C., Eric G. Bolen, and Clarence Cottam. 1972. *Predator-prey relationships and reproduction of the Barn Owl in southern Texas.* Wilson Bull. 84(4):434-448. Study conducted from 1965 to 1971 at Welder Wildlife Refuge. Owl foods were primarily mammalian, 85 per cent, with birds and insects comprising 13 per cent and two per cent, respectively. Clutch size varied from three to eight eggs per nest with a mean of 4.9. Hatching success varied from 18.1 to 69.7 per cent with a mean of 54.9. Birds, primarily icterids, were eaten during periods of low abundance of small mammals and were apparently a second-best food. Reproduction was closely correlated ($r = 0.913$) to mammalian biomass in the diet.

Cain, Brian. 1972. *Cold hardiness and the development of homeothermy in young Black-bellied Tree Ducks.* Wilson Bull. 84(4):483-485. At low ambient temperatures, they "apparently are unable to maintain a constant body temperature for several days after hatching. . . ." Success of large, dump-nested broods probably depends on warm weather during early brooding period.

Alford, John R., III and Eric G. Bolen. 1972. *A note on Golden Eagle talon wounds.* Wilson Bull. 84(4):487-489. They observed these birds using talons and not "closed fist" in attacking duck decoys. Because of these observations and those of others, "Contentions that carcasses of eagle prey are free of talon punctures would thus seem to be largely without merit."

Chapman, Brian R. and Stanley D. Casto. 1972. *Additional vertebrate prey of the Loggerhead Shrike.* Wilson Bull. 84(4): 496-497. A desert massasauga rattlesnake, dropped by startled shrike, exhibited wounds typically caused by shrikes. In another area, shrikes killed Merriam's pocket mice, a green tree frog, and a spring peeper (frog).

Feduccia, J. Alan. 1971. *A rapid method for the preparation of avian skeletal material.* Texas J. Science 23(1):147-148. Utilizes a common detergent, with minimum time in water.

Coon, D. W. and R. F. Gotie. 1972. *A modified holding box for banding large numbers of birds.* Bird-Banding 43(1): 55-56.

Mitchell, C. J. and T. B. Hughes, Jr. 1972. *Homing in House Sparrows,* Passer domesticus. Bird-Banding 43(3):213-214. Only six of 112 birds returned to sites of capture (9-22 miles distant). "More might have returned to their original sites of capture than were recovered, because our recapture attempts were minimal."

Schroeder, M. H., and C. A. Ely. 1972. *Recoveries of Mourning Doves banded as nestlings in west-central Kansas.* Bird-Banding 43(4):257-260. One of 51 nestlings banded in 1968 was recovered in September 1968 near Foard City, Texas. None of about 550 birds banded in earlier years was recovered in Texas.

Wauer, Roland H. 1973. *Status of certain parulids of west Texas.* Southwest. Nat. 18(1):105-110. Discusses 32 species of warblers and related birds from Midland County to El Paso.

Michael, Edwin D. and Wan-tsih H. Chao. 1973. *Migration and roosting of chimney swifts in east Texas.* Auk 90(1):100-105. Considered roosting sites at Aikman Gymnasium and Raguet Elementary School in Nacogdoches. Average arrival date of migrants was 1 April; fall migrants were last seen during late October. Aikman was preferred roosting site for spring and fall migrants. Raguet received many birds during late August and early September; these were probably postbreeding birds from the local area. Time required for 80 percent of birds to enter chimney varied from 5 to 20 minutes; these had entered about 15 minutes after sunset.

Banks, Richard C., Mary H. Clench, and Jon C. Barlow. 1973. *Bird collections in the United States and Canada.* Auk 90(1): 136-170. "Collections were divided into three categories by size: (I) containing more than 1,000 research specimens (study skins, skeletons, and fluid-preserved); (II) between 200 and 1,000 research specimens; and (III) fewer than 200 research specimens." The following are category I collections in Texas: Baylor University, Dallas Museum of Natural History, Rob and Bessie Welder Wildlife Foundation, Stephen F. Austin State University, Texas A&M University, Texas Memorial Museum (University of Texas, Austin), Texas Technological University, University of Dallas, and University of Texas at El Paso. Category II collections: Austin College (Sherman), Big Bend National Park, Corpus Christi Museum, Fort Worth Museum of Science and History, Lamar State College of Technology, and Midwestern University. There are 16 category III collections in Texas.

A.O.U. 1973. *Thirty-second supplement to the American Ornithologists' Union check-list of North American birds.* Auk 90(2):411-419. See TOS News 21(6):2-3, reprint of article by Kent Rylander.

Arnold, Keith A. and James C. Henderson. 1973. *First specimen of arctic loon from Texas.* Auk 90(2):420-421. Collected at Balmorhea Lake, Reeves County.

Fleetwood, Raymond J. 1973. *Jaçana breeding in Brazoria County, Texas.* Auk 90(2):422-423. Mr. and Mrs. John J. Jones reported seeing jaçanas in the area since fall of 1968.

Brown, Charles. 1973. *A second brood attempt by the purple martin.* Auk 90(2):442. Observed in 1970 in north central Texas (Sherman ?). Eggs laid by 27 June but nest abandoned on 14 July; embryos were fully developed. Attempt failed because martins "apparently need the stimulus of the presence of other martins to breed successfully" and others of the small colony had ceased nesting a few weeks earlier.

Tomlinson, Roy E., Seymour H. Levy, and J. J. Levy. 1973. *New distributional records of breeding Mexican ducks.* Condor 75(1):120-121. Considers reports from west Texas.

Gotie, Robert F. and James C. Kroll. 1973. *Growth rate and ontogeny of thermoregulation in nestling great-tailed grackles,* Cassidix mexicanus prosopidicola *(Icteridae).* Condor 75(2): 190-199. Study conducted at Texas A&M University during early summer 1971. Nestlings develop heat dissipating mechanisms at about sixth day of age and heat producing mechanisms at tenth day. Ability to regulate heat increases with age but more so with body weight. From authors' summary: "Growth of nestlings is characterized by three rapid growth periods. The first occurs shortly after hatching and reflects the greatest amount of weight increase. The second occurs shortly after feather eruption, and the third takes place just prior to fledging. The latter period probably involves development and maturation of flight muscles and related flight mechanisms."

Feduccia, Alan. 1973. *Fossil birds from the late Pleistocene Ingleside fauna, San Patricio County, Texas.* Condor 75(2):243-244. "Most of the species are known from the present-day south Texas fauna."

Wiens, John A. 1973. *Pattern and process in grassland bird communities.* Ecol. Monog. 43(2):237-270. From U. S. International Biological Program and includes data collected at the Pantex site in the Texas Panhandle. At Pantex, primary breeding birds were horned lark, western meadowlark, lark bunting, and grasshopper sparrow. Population density, foods, and breeding success are discussed in relation to different sites and treatments, i.e., grazing intensities. Wiens (1973:264-265) concludes that "birds have a patchy and variable distribution in grasslands, both in space and time . . . [there are] some interesting relations between birds and small mammal patterns in grasslands . . . the censuses taken at these grassland sites consistently recorded a low number of breeding bird species and relatively low species diversities . . . it seems unlikely that birds exert any major influence on ecosystem structure, functional properties, or dynamics through their direct effects. . . ." He suggests an "intriguing possibility is that grassland birds really are 'frills' in the ecosystem, living and reproducing off its excesses without really influencing it in any way."

Fall, Bruce A. 1973. *Noteworthy bird records from south Texas (Kenedy County).* Southwest. Nat. 18(2):244-247. "This county is comprised entirely of extensive ranches. . . . With the exception of U. S. Highway 77 . . . the county is inaccessible to the public. . . ."

Haucke, Harry H. and William H. Kiel, Jr. 1973. *Jabiru in south Texas.* Auk 90(3):675-676. This South American stork was identified and photographed at Escondido Lake in Kleberg County.

Pulich, Warren M., Sr. and Warren M. Pulich, Jr. 1973. *First brown booby specimen from Texas.* Auk 90(3):683-684. Injured bird, which later died, was found in Port Aransas, September 1971. It was probably blown in by hurricane Fern.

Flickinger, Edward L., Kirke A. King, and Oliver Heyland. 1973. *Pen-reared fulvous tree ducks used in movement studies of wild populations.* J. Wildl. Manage. 37(2):171-175. In late July to mid-October of 1969 and 1970, a total of 165 immatures was color-marked, banded, and released in Wharton, Brazoria, and Chambers Counties. Eight birds were recovered in Texas and Louisiana and one in Veracruz, Mexico. Southward movements begin in September and spring arrivals begin in mid-April; some ducks remain in rice belt until December.

Cain, Brian W. 1973. *Effect of temperature on energy requirements and northward distribution of the Black-bellied Tree Duck.* Wilson Bull. 85(3):308-317. Study conducted in Illinois using birds captured near Kingsville, Texas. "Temperature may limit the northward distribution of . . . breeding-range by restricting the amount of productive energy available for egg formation" (author's summary).

Wauer, Roland H. 1973. *Bronzed Cowbird extends range into the Texas Big Bend country.* Wilson Bull. 85(3):343-344. Birds seen during 1969, 1970, and 1971.

Rea, Amadeo M. 1973. *The Scaled Quail* (Callipepla squamata*) of the Southwest: systematic and historical.* Condor 75 (3):322-329. Describes new subspecies, *C. s. hargravei,* from Oklahoma, Kansas, Colorado, New Mexico, and northwestern Texas. "The palest race of the species, most similar to *pallida* but much paler . . . size averaging larger (p. 322)." He believes pattern and coloration of subspecies relates to their respective habitats (p. 325).

(Abstracts by James P. Griffing)

Scaled Quail Tony Mollhagen

BOOK REVIEWS

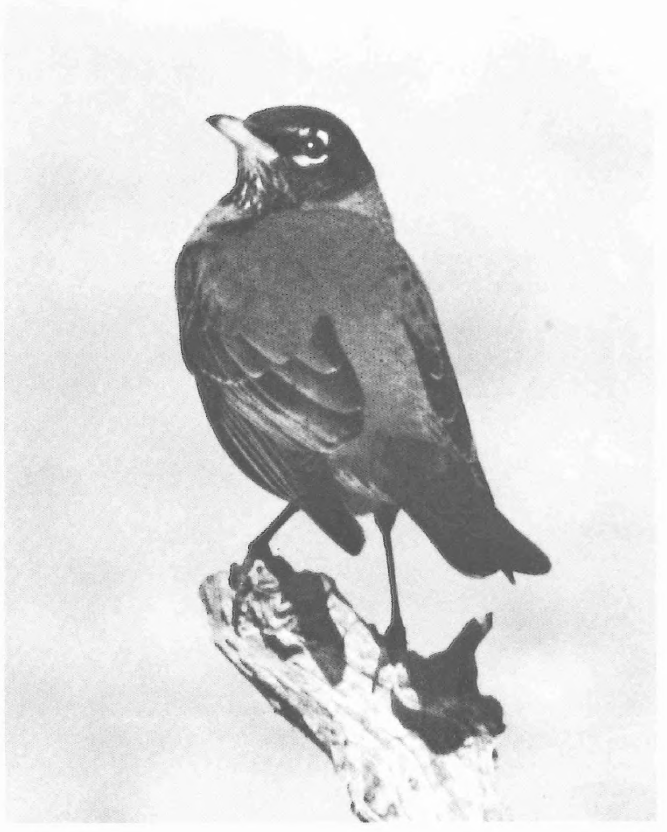
MY ORPHANS OF THE WILD by Rosemary K. Collett and Charlie Briggs. Lippincott, Philadelphia, 1974. $8.95.—Rescue and nursing of injured wildlife seem enormously complicated to most of us and we are really frustrated by all the advice we get when we take in that injured baby bird or raccoon. Rosemary Collett and her neighbor, Charlie Briggs, have written the book we have all been searching for. Mrs. Collett and her husband maintain, on a one-acre piece of property in Venice, Florida, an animal rescue project that has grown to the dimensions of an official wildlife foundation with no less than a hundred residents on hand at any time. Visitors are welcome at the Casa de Felicidades, and the Colletts tour up and down the west coast of Florida in their red van, the *Ark*, carrying their projection and sound equipment and some of their better-behaved patients, for appearances at schools, libraries, hospitals, and nursing homes.

Rosemary Collett says it all started with a pregnant guinea pig eight years ago. Since that time, they have cared for raccoons, skunks, opossums, armadillos, squirrels, rabbits, chipmunks, and other rodents. The book is stuffed with information on the care of song and garden birds, insectivorous birds, talking birds, doves, pigeons, quail, partridges, and pheasants. For every classification there is well-detailed advice on handling, housing, feeding, flight training, and whether or not the bird should be released to the wild again. Some birds, once in captivity, accommodate poorly or not at all when released.

There is a splendid chapter on first aid for birds and four appendices dealing with cages and housing (with illustrations and specifications), the natural diet of some common birds, a veterinary reference section telling you precisely what you will need in the way of medications, and a fourth section on permits and conservation. There is also a good reading list.

The book is replete with anecdotes about the patients, but the authors have avoided the "cutesy" narrative that rambles on and on while you search in frustration for the hard information that you need for the care of the animal or bird that you have just rescued. Moreover, there is an excellent index.

The subtitle of this book is "Rescue and Home Care of Native Wildlife," and it fulfills its promise. It should be a must for all birders.—*Marjorie Sanford Garcia.*



Robin Bert Blair

BIRDS OF THE WORLD by Paul Barruel. Revised edition. Oxford University Press, New York. 1973. 222 pp. Numerous illustrations in color and black and white. $25.00.—This will continue to be one of our standard books on world birds—authoritative and lavishly illustrated. It is organized by topic, rather than phylogenetically (the most common style among bird books). Chapter one treats daily activities, such as locomotion, rhythms, food gathering, etc. Chapter two discusses the various aspects of reproduction, including nesting and parasitism. Chapter three deals with migration and chapter four, with solitary and gregarious birds. Chapter five is concerned with bird populations.

The text is very readable, and the illustrations are relevant to the subject matter and appropriately distributed throughout the book. Barruel's book provides a very interesting account of the birds of the world and should complement, rather than compete with, the other "standard," Austin and Singer's *Birds of the World*.—M.K.R.

THE DICTIONARY OF AMERICAN BIRD NAMES by Ernest A. Choate. Gambit, Inc., 53 Beacon Street, Boston. 1973. 261 pp. $6.95.—This new book about bird names will undoubtedly be compared by ornithologists to one written a year earlier by Gruson (see review in TOS Bulletin, December 1972, where an apology for this sort of book is found). At least one reviewer has stated that Choate's is the more accurate and scholarly of the two. His book is handier than Gruson's (field guide size) and arranged in a different manner. The first part is arranged alphabetically by common name, so that under "Vireo," for instance, one may find the significance of the common names of all the vireos. The second part treats scientific names, and is arranged alphabetically by genus, with the species names explained under their respective genera. The third part contains short biographical sketches of men after whom North American birds are named. The fourth part, "English/Latin Glossary," is not really that, at least in the conventional sense. It simply lists the birds alphabetically by common name in one column, and their scientific names (of Latin and Greek origin) in another.—M.K.R.

BORN TO SING: AN INTERPRETATION AND WORLD SURVEY OF BIRD SONG by Charles Hartshorne. Indiana University Press, Bloomington. 1973. 304 pp. $10.00.—Charles Hartshorne is Ashbel Smith Professor of Philosophy at the University of Texas. He has devoted considerable study to ornithology and in writing this book he has offered ornithologists a book which certainly must be considered one of the most unique books in the field. Even ornithologists who strongly disagree with Professor Hartshorne's ideas on bird song will have to acknowledge the breadth of his knowledge and depth of his scholarship. The following excerpt from the jacket alludes to some of the ideas contained in the book. "Professor Hartshorne has written the first study of animal music to take into account the many new findings in biology and psychology. . . . He defines animal music as the subhuman production of sound patterns having appreciable similarities to human music . . . (and) argues that bird music is music not only for human listeners but in some sense and degree for the birds themselves. Birds, like humans, tend to imitate sounds and to avoid excessive repetition of sound patterns. They take pleasure in their singing and enjoy hearing even their territorial rivals sing . . . this aesthetic enjoyment supplements rather than conflicts with the territorial explanation of song."

Swainson's Hawk

Bert Blair

Red-tailed Hawk

Bert Blair

BULLETIN
OF THE
TEXAS ORNITHOLOGICAL SOCIETY

MICHAEL KENT RYLANDER, Editor
Department of Biological Sciences
Texas Tech University
Lubbock, Texas 79409

BULK RATE
U.S. POSTAGE
PAID
AUSTIN, TEXAS
PERMIT NO. 2744

Young Great Horned Owl — Bert Blair